10/664,544

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	May 12	EXTEND option available in structure searching
NEWS	4	May 12	Polymer links for the POLYLINK command completed in REGISTRY
NEWS	5	May 27	New UPM (Update Code Maximum) field for more efficient patent SDIs in CAplus
NEWS	6	May 27	CAplus super roles and document types searchable in REGISTRY
NEWS	7	Jun 22	STN Patent Forums to be held July 19-22, 2004
NEWS	8	Jun 28	Additional enzyme-catalyzed reactions added to CASREACT
NEWS	9	Jun 28	ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG, and WATER from CSA now available on STN(R)
NEWS	10	Jul 12	BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS

NEWS EXPRESS	MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 15:25:02 ON 19 JUL 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 15:25:09 ON 19 JUL 2004
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STRUCTURE FILE UPDATES: 18 JUL 2004 HIGHEST RN 712264-54-5
DICTIONARY FILE UPDATES: 18 JUL 2004 HIGHEST RN 712264-54-5

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http://www.cas.org/ONLINE/DBSS/registryss.html

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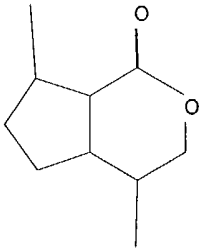
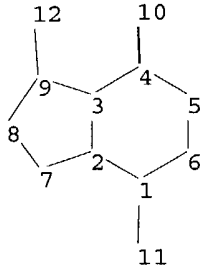
Uploading C:\STNEXP4\QUERIES\10664544.str





chain nodes :
10 11 12
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
1-11 4-10 9-12
ring bonds :
1-2 1-6 2-3 2-7 3-4 3-9 4-5 5-6 7-8 8-9
exact/norm bonds :
4-10
exact bonds :
1-2 1-6 1-11 2-3 2-7 3-4 3-9 4-5 5-6 7-8 8-9 9-12
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS

L1 STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 15:25:59 FILE 'REGISTRY'

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SAMPLE SCREEN SEARCH COMPLETED -    730 TO ITERATE

100.0% PROCESSED     730 ITERATIONS                                 9 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        12980 TO    16220
PROJECTED ANSWERS:               9 TO      360

L2             9 SEA SSS SAM L1

=> s l1 ful
FULL SEARCH INITIATED 15:26:06 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  14838 TO ITERATE

100.0% PROCESSED   14838 ITERATIONS                               62 ANSWERS
SEARCH TIME: 00.00.01

L3            62 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   155.84     156.05

FILE 'CAPLUS' ENTERED AT 15:26:11 ON 19 JUL 2004
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FILE COVERS 1907 - 19 Jul 2004  VOL 141 ISS 4
FILE LAST UPDATED: 18 Jul 2004  (20040718/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l3
L4            91 L3

=> s l4 and (process or make or made or sythesi? or produc? or method)
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       1297155 PROCESSES
       2906486 PROCESS
                 (PROCESS OR PROCESSES)
        192363 MAKE
        147771 MAKES
        330936 MAKE
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                (MAKE OR MAKES)
       1102189 MADE
            24 MADES
       1102209 MADE
                (MADE OR MADES)
            33 SYTHESI?
       3869767 PRODUC?
        819279 PRODN
           528 PRODNS
        819459 PRODN
                (PRODN OR PRODNS)
       4270835 PRODUC?
                (PRODUC? OR PRODN)
       2638927 METHOD
       1112225 METHODS
       3438013 METHOD
                (METHOD OR METHODS)
L5           32 L4 AND (PROCESS OR MAKE OR MADE OR SYTHESI? OR PRODUC? OR METHOD
                )

=> s l5 and (hydrogenation or hydrogenate)
         164124 HYDROGENATION
           2057 HYDROGENATIONS
         164328 HYDROGENATION
                (HYDROGENATION OR HYDROGENATIONS)
           1537 HYDROGENATE
            423 HYDROGENATES
           1924 HYDROGENATE
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L6            4 L5 AND (HYDROGENATION OR HYDROGENATE)

=> s l5 and hydrogen?
       1072192 HYDROGEN?
L7            5 L5 AND HYDROGEN?

=> dup rem l6 l7
PROCESSING COMPLETED FOR L6
PROCESSING COMPLETED FOR L7
L8            5 DUP REM L6 L7 (4 DUPLICATES REMOVED)

=> d l8 ibib hitstr abs 1-5

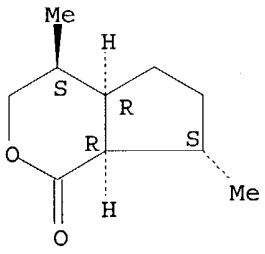
L8   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2004 ACS on STN  DUPLICATE 1
ACCESSION NUMBER:        2003:818413  CAPLUS
DOCUMENT NUMBER:         139:307908
TITLE:                   Production of dihydronepetalactone by the
                         hydrogenation of nepetalactone in the presence
                         of supported Platinum-Group metal catalysts
INVENTOR(S):             Manzer, Leo E.
PATENT ASSIGNEE(S):      E. I. Du Pont de Nemours & Co., USA
SOURCE:                  PCT Int. Appl., 32 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2003084946      A1   20031016       WO 2003-US10072  20030402
```

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003225290 A1 20031204 US 2003-405444 20030402
PRIORITY APPLN. INFO.: US 2002-369470P P 20020403
OTHER SOURCE(S): CASREACT 139:307908
IT **4581-72-0P**, Dihydronepetalactone
RL: SPN (Synthetic preparation); PREP (Preparation)
(**production** of dihydronepetalactone by the **hydrogenation** of nepetalactone in the presence of supported Platinum-Group metal catalysts)
RN 4581-72-0 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-, (4R,4aS,7R,7aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

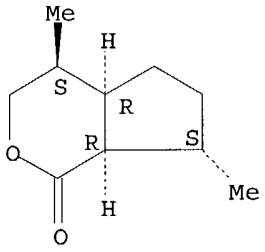


AB A **process** for hydrogenating nepetalactone is described utilizing a metal catalyst (e.g., 5% Pd/C), that is optionally supported, to yield dihydronepetalactone in high yield and selectivity.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 1989:231890 CAPLUS
DOCUMENT NUMBER: 110:231890
TITLE: A new conversion **method** from (-)-limonene to nepetalactones
AUTHOR(S): Suemune, Hiroshi; Oda, Kozo; Saeki, Seitaro; Sakai, Kiyoshi
CORPORATE SOURCE: Fac. Pharm. Sci., Kyushu Univ., Fukuoka, 812, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1988), 36(1), 172-7
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:231890
IT **24190-26-9P 35337-14-5P**
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(stereocontrolled total synthesis of)
RN 24190-26-9 CAPLUS

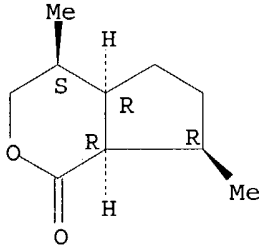
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-, (4S,4aR,7S,7aR)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

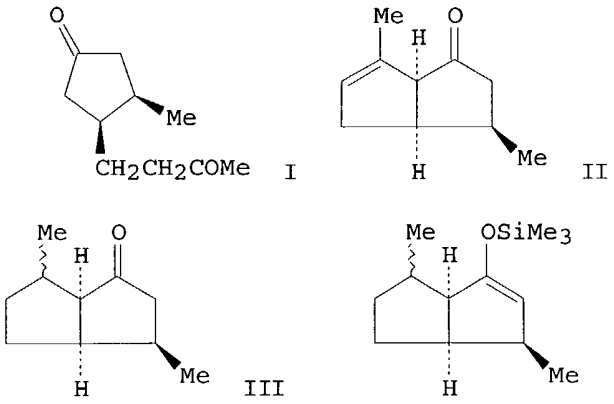


RN 35337-14-5 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-, (4S,4aR,7R,7aR)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



GI

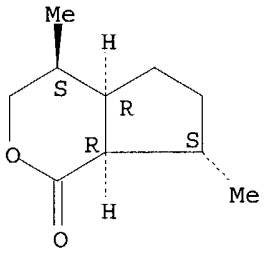


AB (-)-Limonene was converted to 4 nepetalactones in a stereocontrolled manner. The cis-3,4-disubstituted cyclopentanone I obtained from (-)-limonene via Rh(I)-catalyzed cyclization of the 4-pentenal, was converted to the bicyclo[3.3.0]octenone (II). After the stereoselective conversion of II into the diastereomeric isomers of ketones (III), a

sequence of reactions involving the silyl enol ethers (IV), ozonolysis, and subsequent lactonization afforded the target mols.

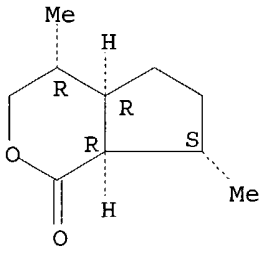
L8 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 1987:84374 CAPLUS
DOCUMENT NUMBER: 106:84374
TITLE: Claisen-rearrangement-mediated ring contraction of macrocyclic lactones. A new approach to carbocycles and heterocycles
AUTHOR(S): Funk, Raymond L.; Abelman, Matthew M.; Munger, John D., Jr.
CORPORATE SOURCE: Dep. Chem., Univ. Nebraska, Lincoln, NE, 68588-0304, USA
SOURCE: Tetrahedron (1986), 42(11), 2831-46
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 106:84374
IT **4581-72-0P 17672-96-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 4581-72-0 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-, (4R,4aS,7R,7aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 17672-96-7 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-, (4R,4aR,7S,7aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



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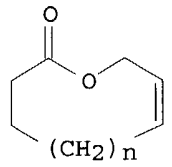

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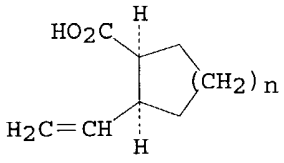
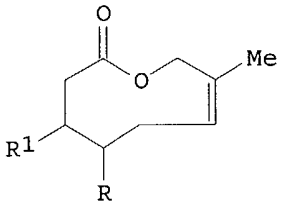
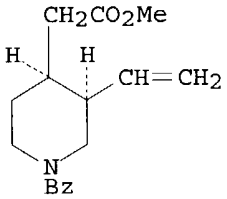


II



III

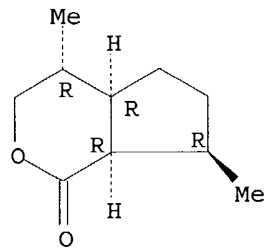


IV

AB Macrocyclic ketene acetals derived from lactones I (n = 1,2,3,4.7) undergo Claisen rearrangement smoothly and constitute a viable and general approach to hetero- or carbocyclic ring systems II. This novel ring contraction **process** is subject to high internal asym. induction, as well as relative asym. induction in the rearrangements of ketene acetals derived from lactones III (R, R1 = H, Me). N-Benzoylmeroquinene Me ester IV was prepared to demonstrate the potential of this methodol. in heterocycle synthesis.

L8 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 1981:117767 CAPLUS
DOCUMENT NUMBER: 94:117767
TITLE: New monoterpene lactones of the iridane type from Actinidia polygama Miq
AUTHOR(S): Sakai, Tsutomu; Nakajima, Kimiko; Sakan, Takeo
CORPORATE SOURCE: Suntory Inst. Bioorg. Res., Osaka, 618, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1980), 53(12), 3683-6
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **35337-15-6**
RL: FORM (Formation, nonpreparative)
(formation of, by catalytic **hydrogenation** of isoneonepetalactone)
RN 35337-15-6 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-, [4R-(4α,4aα,7β,7aα)]- (9CI) (CA INDEX NAME)

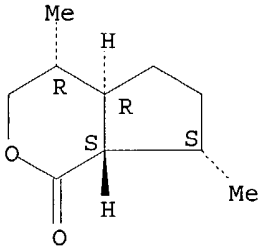
Absolute stereochemistry. Rotation (-).



IT **76831-46-4 76831-47-5**

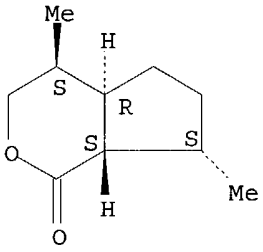
RL: BIOL (Biological study)
(from Actinidia polygama)
RN 76831-46-4 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-, (4R,4aR,7S,7aS)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 76831-47-5 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl-,
[4S-(4α,4aβ,7β,7aα)]- (9CI) (CA INDEX NAME)

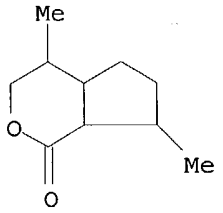
Absolute stereochemistry. Rotation (+).



AB Eight new iridoid monoterpene lactones (dihydroepinepetalactone, isodihydroepinepetalactone, isoepiiridomyrmecin, isoneonepetalactone, dehydroiridomyrmecin, isodehydroiridomyrmecin, actinidialactone, and isoactinidialactone), along with 5 previously isolated lactones (neonepetalactone, dihydronepetalactone, isodihydronepetalactone, iridomyrmecin, and isoiridomyrmecin), were isolated from the volatile oil of fresh fruits of the cat- and lacewing-attracting plant A. polygama. Also isolated from this oil was nepetalactone.

L8 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1955:64532 CAPLUS
DOCUMENT NUMBER: 49:64532
ORIGINAL REFERENCE NO.: 49:12314a-h
TITLE: The degradation of nepetalactone
AUTHOR(S): Meinwald, Jerrold
CORPORATE SOURCE: Cornell Univ., Ithaca, NY
SOURCE: Journal of the American Chemical Society (1954), 76, 4571-3
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT **21950-33-4**, Cyclopentanecarboxylic acid, 2-(2-hydroxy-1-methylethyl)-5-methyl-, δ-lactone
(preparation of)

RN 21950-33-4 CAPLUS
CN Cyclopenta[c]pyran-1(3H)-one, hexahydro-4,7-dimethyl- (8CI, 9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB Nepetalactone was shown to possess structure I. Oil of catnip distilled by the **method** of McElvain, et al. (C.A. 36, 5800.2), yielded I, b13 129-30°, λmaximum 5.67, 5.93 μ. Freshly distilled I (16.6 g.) in 50 cc. glacial AcOH **hydrogenated** several hrs. over 1.0 g. PtO2, the mixture filtered, most of the AcOH distilled off in vacuo, the residue washed 3 times with H2O and dissolved in Et2O, the solution extracted with aqueous Na2CO3, the alkaline extract acidified with dilute HCl and extracted with Et2O, the extract washed, dried, and evaporated, and the residue distilled gave 11.6 g. 2-methyl-5-isopropylcyclopentanecarboxylic acid (II), b0.35 85°, n20D 1.4568; the Et2O layer (after extraction with the aqueous Na2CO3) evaporated, and the residue (4.2 g.) distilled gave dihydro derivative of I, b0.30 77-9°, λmaximum 5.79 μ. II (6 g.) in 20 cc. dry Et2O added with stirring to 5 g. LiAlH4 suspended in 100 cc. dry Et2O, the mixture stirred 5 hrs. at room temperature and decomposed with saturated aqueous Na2SO4, the aqueous layer extracted twice with Et2O, and the combined Et2O layer and extract dried and evaporated gave 5.3 g. 2-methyl-5-isopropylcyclopentylcarbinol (III), b0.70 60°, n20D 1.4621, λmaximum 3.0 μ. III (15.7 g.), 12.4 g. Ac2O, and 9.6 g. dry pyridine let stand overnight at room temperature, the mixture poured into ice water and extracted with Et2O, and the extract washed with dilute HCl and H2O yielded 17.9 g. acetate (IV) of III, b0.40 53°, n20D 1.4467, λmaximum 5.76 μ. Carborundum chips in a glass column heated to 500° and swept with N, 5.7 g. IV in 10 cc. pentane dropped through the column at a rate of 20 drops/min., the pyrolysis **product** collected in a Dry Ice trap, the collected yellow liquid having the odor of AcOH washed with base, the pentane distilled off, and the residue (4.2 g.) examined by infrared spectroscopy showed mainly unreacted IV with small amts. of an olefin, λmaximum 3.28, 6.07, 11.40 μ. IV (17.9 g.) pyrolyzed similarly at 510° but without a diluent and the pyrolyzate worked up in the same manner gave 11 g. material shown to be IV mixed with an olefin; this mixture again pyrolyzed at 530°, and the resulting 7 g. pyrolyzate distilled gave 3 g. 2-methyl-5-isopropylcyclopentylidenemethane (V), pale yellow oil, b150 84-90°, λmaximum 3.28, 6.07, 11.40 μ, decolorized Br in CCl4 and aqueous KMnO4. Crude V (2.8 g.) treated at -78° with excess ozone, the mixture poured into 8 g. Zn dust suspended in 25 cc. glacial AcOH, the mixture stirred 4 hrs. at room temperature, refluxed 1 hr., and distilled into 4.3 g. dimedon, 30 cc. 75% EtOH, and a few drops piperidine, and the mixture concentrated

to 20 cc. gave 1.25 g. dimedon derivative of CH2O, m. 189-90°; the AcOH solution poured into H2O and extracted with Et2O gave 2.5 g. crude ketone, mobile yellow liquid, which distilled gave 1 g. 2-methyl-5-isopropylcydopentanone (VI), b740 181-6°, λmaximum 5.78 μ; 2,4-dinitrophenylhydrazone (VII), m. 169-71.5°. The infrared spectra of synthetic and natural VII and semicarbazone of VI are recorded.

=> log y

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